WEST Search History

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Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,DWPI; PLUR=YES; OP=ADJ		
☐	L5	fruebis adj joachim	12
☐	L4	erickson adj mary	9
☐	L3	bihain adj bernard	28
☐	L2	yen adj frances	8

END OF SEARCH HISTORY

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	8	yen adj frances	US-PGPUB; USPAT; DERWENT	OR	ON	2005/06/01 11:48
L4	28	bihain adj bernard	US-PGPUB; USPAT; DERWENT	OR	ON	2005/06/01 11:48
L5	9	erickson adj mary	US-PGPUB; USPAT; DERWENT	OR	ON	2005/06/01 11:49
L6	12	fruebis adj joachim	US-PGPUB; USPAT; DERWENT	OR	ON	2005/06/01 11:49

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=> d his

     (FILE 'HOME' ENTERED AT 10:43:10 ON 01 JUN 2005)

     FILE 'CAPLUS, MEDLINE, BIOSIS' ENTERED AT 10:43:36 ON 01 JUN 2005
L1             1 S LSR AND COMPOUND AND MODULATION AND OBESITY
L2             9 S LSR AND OBESITY
L3         25658 S LIPOLYSIS
L4          2625 S L3 AND OBESITY
L5            82 S L4 AND MODULATION
L6            12 S L5 AND COMPOUND
L7            10 DUP REM L6 (2 DUPLICATES REMOVED)
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L7 ANSWER 1 OF 10 MEDLINE on STN
TI . Dietary calcium and dairy **modulation** of adiposity and **obesity** risk.
PY 2004
AU Zemel Michael B; Miller Sharon L
TI Dietary calcium and dairy **modulation** of adiposity and **obesity** risk.
AB Dietary calcium plays a key role in the regulation of energy metabolism and **obesity** risk. This appears to be mediated primarily by dietary calcium **modulation** of circulating calcitriol, which in turn regulates adipocyte intracellular calcium ([Ca2+]i). Increased [Ca2+]i stimulates lipogenic gene expression and activity and inhibits **lipolysis**, resulting in increased adipocyte lipid accumulation. Since calcitriol stimulates adipocyte Ca2+ influx, low calcium diets promote adiposity, while dietary calcium-suppression. . . . confirmed in controlled rodent studies as well as by epidemiological and clinical trial data, all of which confirm protection from **obesity** with high calcium intakes. Moreover, dairy sources of calcium exert markedly greater effects which are most likely attributable to additional bioactive **compounds** in dairy which act synergistically with calcium to attenuate adiposity.
CT . . . physiology
*Calcium, Dietary: AD, administration & dosage
*Dairy Products
Diet, Reducing
Energy Metabolism: PH, physiology
Humans
Milk Proteins: ME, metabolism
Obesity: DH, diet therapy
***Obesity: ME, metabolism**
***Obesity: PC, prevention & control**
Research Support, Non-U.S. Gov't
Risk Factors

L7 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods for the treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12
PY 2003
IN An, Wenqian Frank; Chen, Hong
TI Methods for the treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12
AB The invention relates to methods and compns. for the diagnosis and treatment of metabolic disorders, including, but not limited to, **obesity**, overweight, diabetes, insulin resistance, anorexia, and cachexia. The invention further provides methods for identifying a **compd.** capable of treating a metabolic disorder. The invention also provides methods for identifying a **compd.** capable of modulating a metabolic activity. Yet further, the invention provides a method for modulating a metabolic activity. In addition,. . . nucleic acid expression. In another aspect, the invention provides methods for modulating lipogenesis in a subject and methods for modulating **lipolysis** in a subject.
ST metabolic disorder antiobesity antidiabetes matrix metalloproteinase **modulation**
IT Computer program
(ALIGN; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Ribozymes
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(MMP-12; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Adipose tissue
(adipocyte, progenitor; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix

metalloproteinase 12)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(against MMP-12; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Metabolism, animal
(disorder, treatment of; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Animal tissue
(expressing MMP-12; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(homeostasis; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Homeostasis
(lipid, glucose, insulin; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Antidiabetic agents
Antiobesity agents
Drug screening
Human
Mus
Protein sequences
cDNA sequences
(methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Cell differentiation
Hyperplasia
(**modulation** of; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Body weight
Diabetes mellitus
(overweight; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT Anorexia
Cachexia
Obesity
(treatment of; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT 81669-70-7, Metalloprotease
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(activity; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT 582341-15-9P, Elastase (human) 582341-27-3P, Elastase (mouse)
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)
IT 9004-06-2P, Matrix metalloproteinase 12
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antisense mol.; methods for treatment of metabolic disorders,

including **obesity** and diabetes, by modulating matrix metalloproteinase 12)

IT 582341-16-0, DNA (human elastase cDNA plus flanks) 582341-26-2, DNA (mouse elastase cDNA plus flanks)
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)

IT 9004-10-8, Insulin, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(resistance; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)

IT 50-99-7, D-Glucose, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(tolerance, homeostasis; methods for treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)

IT 582345-67-3 582345-68-4
RL: PRP (Properties)
(unclaimed nucleotide sequence; methods for the treatment of metabolic disorders, including **obesity** and diabetes, by modulating matrix metalloproteinase 12)

L7 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods for the treatment of metabolic disorders, including **obesity** and diabetes
PY 2003
IN Xu, Haiyan
TI Methods for the treatment of metabolic disorders, including **obesity** and diabetes
AB The invention relates to methods and compns. for the diagnosis and treatment of metabolic disorders, including, but not limited to, **obesity**, diabetes, overweight, insulin resistance, anorexia, and cachexia. The invention further provides methods for identifying a **compd**. capable of treating a metabolic disorder. The invention also provides methods for identifying a **compd**. capable of modulating a metabolic activity. Yet further, the invention provides a method for modulating a metabolic activity. In addition,. . . nucleic acid expression. In another aspect, the invention provides methods for modulating lipogenesis in a subject and methods for modulating **lipolysis** in a subject.

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(SARP3 (secreted apoptosis related protein 3); methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Antisense nucleic acids
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(SARP3 mol.; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Gene, animal
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SARP3; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Ribozymes
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SARP3; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Adipose tissue
(adipocyte, progenitor, growth of; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(anti-SARP3; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Peptides, biological studies
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(antisense, to SARP3; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Drugs
(appetite stimulants; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Metabolism, animal
(disorder; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(metabolism, **modulation** of; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Antidiabetic agents
Antiobesity agents
Appetite depressants
Drug screening
Feeding
Human
Mus
Protein sequences
cDNA sequences
(methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Apoptosis
Hyperplasia
Hypertrophy
(**modulation** of; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Promoter (genetic element)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(of SARP3 gene; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Cell differentiation
(of adipose cell progenitor; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Body weight
(overweight; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Appetite
(stimulants; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Anorexia
Cachexia
Diabetes mellitus
Obesity
(treatment of; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT Catenins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β-; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT 568619-83-0P 568623-79-0P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; methods for treatment of metabolic disorders, including **obesity** and diabetes)
IT 169494-85-3, Leptin

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 568619-84-1 568623-80-3
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 9004-10-8, Insulin, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(resistance; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 50-99-7, D-Glucose, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(tolerance; methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 568631-45-8 568631-46-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; methods for the treatment of metabolic disorders, including **obesity** and diabetes)

L7 ANSWER 4 OF 10 MEDLINE on STN DUPLICATE 1
TI Mechanisms of dairy **modulation** of adiposity.
PY 2003
AU Zemel Michael B
TI Mechanisms of dairy **modulation** of adiposity.
AB . . . diets to attenuate adipocyte lipid accretion and weight gain during periods of overconsumption of an energy-dense diet and to increase **lipolysis** and preserve thermogenesis during caloric restriction, thereby markedly accelerating weight loss. Our studies of the agouti gene in **obesity** and insulin resistance demonstrate a key role for intracellular Ca(2+) in regulating adipocyte lipid metabolism and triglyceride storage, with increased intracellular Ca(2+), resulting in stimulation of lipogenic gene expression and lipogenesis, and suppression of **lipolysis**, resulting in adipocyte lipid filling and increased adiposity. Moreover, we have recently demonstrated that the increased calcitriol produced in response. . . promotes adiposity. Accordingly, suppressing calcitriol levels by increasing dietary calcium is an attractive target for the prevention and management of **obesity**. In support of this concept, transgenic mice expressing the agouti gene specifically in adipocytes (a humanlike pattern) respond to low calcium diets with accelerated weight gain and fat accretion, whereas high calcium diets markedly inhibit lipogenesis, accelerate **lipolysis**, increase thermogenesis and suppress fat accretion and weight gain in animals maintained at identical caloric intakes. Further, low calcium diets. . . fat gain and accelerating fat loss. This augmented effect of dairy vs. supplemental calcium is likely attributable to additional bioactive **compounds** in dairy that act synergistically with calcium to attenuate adiposity; among these are angiotensin converting enzyme inhibitory peptides, which limit. . . .
CT . . . metabolism
Animals
*Calcium, Dietary: TU, therapeutic use
*Dairy Products
Guinea Pigs
Humans
*Intercellular Signaling Peptides and Proteins
Mice
Mice, Transgenic
***Obesity: DH, diet therapy**
*Proteins: DE, drug effects

L7 ANSWER 5 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Role of dietary calcium and dairy products in modulating adiposity.
PY 2003
AU Zemel, Michael B. [Reprint Author]
AB. . . of energy metabolism. High-calcium diets attenuate adipocyte lipid accretion and weight gain during overconsumption of an energy-dense diet

and increase **lipolysis** and preserve thermogenesis during caloric restriction, thereby markedly accelerating weight loss. Our studies of the agouti gene demonstrate a key. . . lipid metabolism and TG storage. Increased intracellular Ca2+ resulting in stimulation of lipogenic gene expression, and lipogenesis and suppression of **lipolysis** resulting in adipocyte lipid filling and increased adiposity. Moreover, we recently demonstrated that the increased calcitriol produced in response to. . . adipocyte Ca2+ influx and, consequently, promotes adiposity. Accordingly, suppressing calcitriol levels by increasing dietary calcium is an attractive target for **obesity** intervention. In support of this concept, transgenic mice expressing the agouti gene specifically in adipocytes (a human-like pattern) respond to low-calcium diets with accelerated weight gain and fat accretion, whereas high-calcium diets markedly inhibit lipogenesis, accelerate **lipolysis**, increase thermogenesis, and suppress fat accretion and weight gain in animals maintained at identical caloric intakes. Further, low-calcium diets impede. . . weight and fat gain and accelerating fat loss. This augmented effect of dairy products is likely due to additional bioactive **compounds** in dairy that act synergistically with calcium to attenuate adiposity. These concepts are confirmed by both epidemiological and clinical data,. . . exert significantly greater effects. These data indicate an important role for dairy products in both the prevention and treatment of **obesity**.

IT Major Concepts
Nutrition

IT Diseases
obesity: nutritional disease
Obesity (MeSH)

IT Chemicals & Biochemicals
1,25-dihydroxy-vitamin D; calcium: intracellular concentration

IT Miscellaneous Descriptors
adiposity: **modulation**; dairy products: dairy product; dietary calcium: food supplement; energy metabolism: regulation; energy partitioning; high-calcium diet; lipid metabolism

L7 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

TI sequences of protein 14273 from human and mouse, and methods for the treatment of metabolic disorders, including **obesity** and diabetes

PY 2002
2003
2002

IN Gimeno, Ruth; Tsai, Fong-Ying

TI sequences of protein 14273 from human and mouse, and methods for the treatment of metabolic disorders, including **obesity** and diabetes

AB . . . 14273 gene expression has been further found to be upregulated during exposure to cold, and down-regulated in genetic model of **obesity**. The present invention relates to methods and compns. for the diagnosis and treatment of metabolic disorders, including, but not limited to, **obesity**, diabetes, overweight, anorexia, or cachexia. The invention further provides methods for identifying a **compd**. capable of treating a metabolic disorder. The invention also provides methods for identifying a **compd**. capable of modulating a metabolic activity. Yet further, the invention provides a method for modulating a metabolic activity. In addition,. . . nucleic acid expression. In another aspect, the invention provides methods for modulating lipogenesis in a subject and methods for modulating **lipolysis** in a subject. In yet another aspect, the invention provides methods for regulating endogenous glucose levels.

ST sequence protein human mouse metabolic disorder **obesity** diabetes therapy

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Adipose tissue

(adipocyte, hyperplastic or hypertrophic growth, treatment of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Gel electrophoresis
(agarose, for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Antisense DNA
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Adipose tissue
(brown, high level of 14273 gene expression in; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Metabolism, animal
(disorder, treatment of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT mRNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(encoding protein 14273, tissue distribution; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Northern blot hybridization
Nucleic acid amplification (method)
Southern blot hybridization
(for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Nucleic acid hybridization
(for detecting the presence of protein 14273 in a sample; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Genetic vectors
(for expressing protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Gene therapy
(for modulating the levels or activities of protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Nucleic acid hybridization
(in situ, for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(labeled, to protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(labeled; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**lipolysis, modulation** of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Second messenger system
(**modulation** of; sequences of protein 14273 from human and

mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Diagnosis
(mol.; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Mutagenesis
(on 14273 gene; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(production, **modulation** of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Antidiabetic agents
Antiobesity agents
Drug screening
Human
Molecular cloning
Protein sequences
cDNA sequences
(sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to protein 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Mus
(transgenic; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Diabetes mellitus
Obesity
(treatment of; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT Adipose tissue
(white, high level of 14273 gene expression in; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 456538-24-2P, Protein (human clone 14273) 456538-26-4P, Protein (mouse clone 14273)
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 9012-36-6, Agarose
RL: DEV (Device component use); USES (Uses)
(gel electrophoresis, for detecting 14273; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 456538-23-1 456538-25-3
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

IT 456540-70-8, 3: PN: WO02067868 SEQID: 3 unclaimed DNA 456540-71-9, 6: PN: WO02067868 SEQID: 6 unclaimed DNA 456540-72-0 456540-73-1 456540-74-2 456540-75-3 456540-76-4 456540-77-5 456540-78-6 456540-79-7 456540-80-0 456540-81-1
RL: PRP (Properties)

(unclaimed nucleotide sequence; sequences of protein 14273 from human and mouse, and methods for treatment of metabolic disorders, including **obesity** and diabetes)

L7 ANSWER 7 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI **Modulation** of the sulfonylurea receptor and calcium in adipocytes for treatment of **obesity**/diabetes.
PY 2002
AU Wilkison, William O. [Inventor, Reprint Author]; Zemel, Michael B. [Inventor]; Moustaid-Moussa, Naima [Inventor]
TI **Modulation** of the sulfonylurea receptor and calcium in adipocytes for treatment of **obesity**/diabetes.
AB The invention provides methods for determining the ability of **compounds** to regulate lipogenesis and **lipolysis** by acting as a sulfonylurea-1 (SUR 1) potassium channel activator, an adipocyte potassium channel activator, an SUR 1 antagonist, and. . . SUR 1 antagonist. The present invention recognizes the presence of the sulfonylurea receptor in adipocytes and its utility in identifying **compounds** and in regulating lipogenesis and **lipolysis**.
IT . . .
(Human Medicine, Medical Sciences); Methods and Techniques; Nutrition
IT Diseases
diabetes: endocrine disease/pancreas, metabolic disease, therapy
Diabetes Mellitus (MeSH)
IT Diseases
obesity: nutritional disease, therapy
Obesity (MeSH)
IT Methods & Equipment
adipocyte sulfonylurea receptor/calcium **modulation**
obesity/diabetes therapy: clinical techniques, therapeutic and prophylactic techniques

L7 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
TI **Modulation** of the sulfonylurea receptor and calcium in adipocytes for treatment of **obesity**/diabetes, and screening method
PY 2000
2001
2002
2003
IN Wilkison, William O.; Zemel, Michael B.; Moustaid-Mousse, Naima
TI **Modulation** of the sulfonylurea receptor and calcium in adipocytes for treatment of **obesity**/diabetes, and screening method
AB Methods are provided for identifying **compds**. and compns. useful in the regulation of weight, the treatment of **obesity**, diabetes and other insulin resistance-related disorders hypertension, cardiovascular disease, etc. The methods comprise the use of adipocytes and preadipocytes in assays and screens for **compds**. or compns. of interest. The invention recognizes the presence of the sulfonylurea receptor in adipocytes and its utility in identifying **compds**. and in treating **obesity** and other insulin resistance-related disorders. The methods of the invention also provide for identifying novel calcium channels or other calcium regulatory channels that are selectively expressed in human adipocytes as compared to human preadipocytes and for screening adipocytes for **compds**. that selectively antagonize calcium. These **compds**. may be used in the treatment of **obesity** and diabetes and other insulin resistance-related disorders. Once identified, the **compds**. of the invention can be used in pharmaceutical compns. for the treatment of insulin resistance-related disorders and to regulate lipogenesis and **lipolysis**.
ST sulfonyl receptor **modulation** adipocyte **obesity** diabetes drug screening; calcium channel adipocyte **obesity** diabetes drug screening; insulin resistance disorder drug screening; hypertension cardiovascular disease drug screening; lipogenesis **lipolysis** drug screening
IT Gene, animal

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(SUR1; sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Adipose tissue
(adipocyte; sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Ion channel blockers
(calcium; sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Biological transport
(influx; sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Lipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(lipogenesis; sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Lipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**lipolysis**; sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Antidiabetic agents
Antiobesity agents
Drug screening
(sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT Calcium channel
Glycerides, biological studies
Potassium channel
Sulfonylurea receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT 9004-10-8, Insulin, biological studies 9045-77-6, Fatty acid synthase 9075-65-4, Glycerol-3-phosphate dehydrogenase
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT 364-98-7, Diazoxide 11024-24-1, Digitonin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT 10238-21-8, Glibenclamide 21829-25-4, Nifedipine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

IT 50-99-7, D-Glucose, biological studies 56-81-5, 1,2,3-Propanetriol, biological studies 60-92-4 7440-70-2, Calcium, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(sulfonylurea receptor and calcium **modulation** in adipocytes for treatment of **obesity**/diabetes, and screening method)

L7 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications
PY 1999
1999
1999
2004
1999
2002
1999
1999
2002
1999
2003
2001
2003
2004
2004
2004
2004
2003
2004
2002
2004
IN Bihain, Bernard; Bougueleret, Lydie; Yen-Potin, Frances
TI Mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications
AB . . . and human LSR proteins, the genes and cDNAs encoding them, and their cloning and expression. Methods for diagnosing and selecting **compds**. useful as medicine for preventing and/or treating pathologies and/or pathogenic conditions such as **obesity** and anorexia, hyperlipemia, atherosclerosis, diabetes, hypertension, and more generally the various pathologies associated with anomalies of the cytokine metabolism are. . .
ST sequence rat mouse human **lipolysis** stimulated receptor cDNA; leptin VLDL LDL internalization degrdn **lipolysis** stimulated receptor; C1q receptor binding regulation **lipolysis** stimulated receptor
IT Apolipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(B, binding/internalization by LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)
IT Complement receptors
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(C1q, binding to/regulation of LSR by; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)
IT Apolipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(E, binding/internalization by LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)
IT Lipoprotein receptors
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(LSR (**lipolysis**-stimulated receptor); mammalian

lipolysis-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Liver
(LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(anti-LSR; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Chylomicrons
(binding/internalization by LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Glycerides, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(binding/internalization by LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Heart, disease
(failure; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for LSR nucleic acid; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT cDNA sequences
(for **lipolysis**-stimulated receptors LSR of rat, mouse and human)

IT Lipids, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hyperlipidemia; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Lipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(low-d., binding/internalization by LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Anorexia
Antiarteriosclerotics
Antidiabetic agents
Antihypertensives
Antiobesity agents
Diagnosis
Digestion, biological
Drug screening
Mouse (Mus musculus)
Rat (Rattus norvegicus)
(mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Gene, animal
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(mammalian **lipolysis**-stimulated receptors LSR and nucleic

acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal, anti-LSR; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Genetic polymorphism
Mutation
(of LSR gene, detection of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Molecular cloning
(of LSR nucleic acid; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT DNA sequences
(of **lipolysis**-stimulated receptor LSR genes of human)

IT Protein sequences
(of **lipolysis**-stimulated receptors LSR of rat, mouse and human)

IT Mammal (Mammalia)
Rabbit
(transgenic, LSR-expressing; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Lipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(very-low-d., binding/internalization by LSR of; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 220702-90-9P 220702-94-3P 220702-96-5P 220702-98-7P 220703-00-4P
220703-02-6P 220703-06-0P 220703-07-1P 220703-08-2P
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(amino acid sequence; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 169494-85-3, Leptin
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(binding to and **modulation** of LSR by; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 69-93-2, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hyperuricemia; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 220702-87-4 220702-93-2 220702-95-4 220702-97-6 220702-99-8
220703-01-5 220703-03-7 220703-04-8 220703-05-9 220703-09-3
220703-10-6 220703-11-7 220703-12-8 220703-13-9 220703-14-0
220703-15-1 220703-16-2 220703-17-3 220703-18-4
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; mammalian **lipolysis**-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 220608-53-7 220608-57-1
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(rat LSR subunit α peptide; mammalian **lipolysis**
-stimulated receptors LSR and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

L7 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Evidence for abnormal prostaglandin synthesis in obese Zucker rat adipose cell cultures
PY 1989
AU Gaskins, H. Rex; Hausman, Dorothy B.; Martin, Roy J.; Hausman, Gary J.
AB PGE2 synthesis by presumptive and mature adipocytes isolated from lean and obese Zucker rats was examined Isoproterenol-stimulated **lipolysis** was greater in short-term incubations of mature adipocytes isolated from lean rats than in those from obese rats in terms. . . not altered, regardless of treatment. Primary cell cultures of presumptive adipocytes from both phenotypes released PGE2 in response to lipolytic **compds** .; however, cultures from obese rats had lower PGE2 release rates than cultures from lean rats. In addition, compared to cultures. . .
ST prostaglandin formation adipose cell **obesity**; PGE2 formation adipocyte **obesity**
IT Cell aging
(PGE2 formation by adipocytes in culture inhibition by **obesity** in relation to)
IT **Obesity**
(PGE2 formation by adipocytes in, cell maturation **modulation** of)
IT Prostaglandins
RL: FORM (Formation, nonpreparative)
(formation of, by adipocytes in culture, **obesity** effect on, cell maturation in relation to)
IT Lipids, biological studies
RL: BIOL (Biological study)
(lysis of, by adipocytes in culture, isoproterenol stimulation of, **obesity** inhibition of)
IT Adipose tissue, metabolism
(adipocyte, PGE2 formation by, in culture, **obesity** effect on, cell maturation in relation to)
IT 7683-59-2, Isoproterenol
RL: BIOL (Biological study)
(PGE2 formation by adipocytes in culture stimulation by, **obesity** inhibition of)
IT 363-24-6, PGE2
RL: FORM (Formation, nonpreparative)
(formation of, by adipocytes in culture, **obesity** effect on, cell maturation in relation to)

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     (FILE 'HOME' ENTERED AT 10:43:10 ON 01 JUN 2005)

     FILE 'CAPLUS, MEDLINE, BIOSIS' ENTERED AT 10:43:36 ON 01 JUN 2005
L1             1 S LSR AND COMPOUND AND MODULATION AND OBESITY
L2             9 S LSR AND OBESITY
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L2 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:931403 CAPLUS
DN 140:758
TI Inhibiting the proteolytic inactivation of OBG3 protein by peptides derived from the unique region of the protein in treatment of metabolic disorders
IN Lucas, John; Dialynas, Deno
PA Genset SA, Fr.
SO PCT Int. Appl., 160 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003097689	A1	20031127	WO 2003-IB1888	20030507
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1506229	A1	20050216	EP 2003-719041	20030507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	US 2002-381603P	P	20020517		
	WO 2003-IB1888	W	20030507		

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l2 1-9 ti py au so kwic

L2 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Inhibiting the proteolytic inactivation of OBG3 protein by peptides derived from the unique region of the protein in treatment of metabolic disorders
PY 2003
2005
IN Lucas, John; Dialynas, Deno
SO PCT Int. Appl., 160 pp.
CODEN: PIXXD2
AB . . . prolong the effectiveness of the protein. These fragments of OBG3 should be effective for reducing body mass and for treating **obesity**-related diseases and disorders. These **obesity**-related diseases and disorders include hyperlipidemias, atherosclerosis, diabetes, and hypertension.
ST OBG3 **obesity** treatment proteolysis inactivation inhibition cysteine peptide; sequence cDNA OBG3 protein human mouse
IT Lipoprotein receptors
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**LSR** (lipolysis-stimulated receptor), stimulation by OBG3 of; inhibiting proteolytic inactivation of OBG3 protein by peptides derived from unique region of protein in treatment of metabolic disorders)
IT **Obesity**
(treatment of; inhibiting proteolytic inactivation of OBG3 protein by peptides derived from unique region of protein in treatment of metabolic disorders)

L2 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Human biallelic marker maps and their uses
PY 2002

2003
2002
2003
2004
2004
IN Cohen, Daniel; Blumenfeld, Marta; Chumakov, Ilya; Abderrahim, Hadi; Bihain, Bernard
SO PCT Int. Appl., 311 pp.
CODEN: PIXXD2
AB . . . of heterozygosity) data as a candidate region. Methods of the invention were also used to show association of a frequent **LSR** (lipolysis-stimulated receptor) gene polymorphism with elevated plasma triglycerides in obese adolescents.
IT Lipoprotein receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**LSR** (lipolysis-stimulated receptor), gene for; human biallelic marker maps and their uses)
IT Gene, animal
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(for **LSR** (lipolysis stimulated receptor); human biallelic marker maps and their uses)
IT Allele frequency
Alleles
Alzheimer's disease
Computer application
DNA microarray technology
DNA sequence analysis
Data processing
Genetic linkage
Genetic markers
Genotyping (method)
Human
Mutation
Nucleic acid hybridization
Obesity
PCR (polymerase chain reaction)
Population genetics
Prostate gland, neoplasm
Simulation and Modeling, biological
Susceptibility (genetic)
(human biallelic marker maps and their uses)

L2 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods of screening for compounds that modulate the **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in the prevention and treatment of **obesity**-related diseases
PY 2001
2002
2001
2002
IN Yen, Frances; Erickson, Mary Ruth; Fruebis, Joachim; Bihain, Bernard
SO PCT Int. Appl., 247 pp.
CODEN: PIXXD2
TI Methods of screening for compounds that modulate the **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in the prevention and treatment of **obesity**-related diseases
AB The present invention is drawn to methods of screening for new compds. for the treatment of **obesity** and **obesity**-related diseases and disorders, as well as methods of treating **obesity**-related diseases and disorders, based on the discovery of the role of the leptin-**LSR** interaction in **obesity**. The lipolysis stimulated receptor (**LSR**) displays a high affinity for unmodified triglyceride-rich lipoproteins and is involved in the partitioning of dietary lipids among the liver,adipose. . . leptin OB receptor, thereby showing that leptin signaling can be independent of the OB receptor. Leptin increases the activity of **LSR**, binds directly to

LSR, and that leptin binding leads to leptin degradation **LSR** is actually at least two receptors, one for triglyceride-rich lipoproteins, and one for leptin. The three subunits that make up **LSR**, α, β, and α', actually combine in at least two ways: (1) α and β together make up the **LSR** receptor for triglyceride-rich lipoproteins, and (2) α' is a necessary part of the **LSR** receptor for leptin, that may include β as well. Thus, it is now clear that assays can be designed for identifying modulators or receptors/binding partners/signalling cascade members that are specific for the triglyceride-related activity of **LSR** or for the leptin-related activity of **LSR** or both. Further, the invention features the discovery of a 22 amino acid region of human leptin that modulates **LSR** activity in vitro and in vivo in the same way as the intact human leptin, thus allowing the use of only this critical region in assays for modulators of the leptin-**LSR** interaction, and new leptin receptors and binding partners. The new leptin fragment can also be used in disease treatment since. . .

ST sequence rat mouse human lipolysis stimulated receptor cDNA; leptin interaction lipolysis stimulated receptor **LSR** drug screening

IT Complement receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(C1q; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Animal cell line
(CHO-K1, host; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Cytometry
(FACS (fluorescence-activated cell sorting); methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Animal cell line
(HepG2, host; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Animal cell line
(Hepa 1, -6, host; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Mucopolysaccharidosis
(Hurler's syndrome, treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Lipoprotein receptors
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(**LSR** (lipolysis-stimulated receptor); methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Animal cell line
(PLC, host; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(activator, for VP16; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Molecular association
(between **LSR** and leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Glycerides, biological studies
Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding, uptake or degradation; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Drugs
(comprising leptins; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Artery, disease
(coronary, treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Bond
(covalent, interactions between **LSR** and leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for **LSR** nucleic acid; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Computer application
Crystallography
NMR (nuclear magnetic resonance)
X-ray
(for detecting interactions between **LSR** and leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Genetic vectors
(for expressing leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Adipose tissue
Brain
Liver
Muscle
(gene library from; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT CD2 (antigen)
CD4 (antigen)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(gene library labeled with; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)
IT Proteins, specific or class
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(green fluorescent, gene library labeled with; methods of screening for

compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Bond
(hydrophobic, interactions between **LSR** and leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hyperlipidemia, treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Hydrogen bond
Steric hindrance
(interactions between **LSR** and leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Gene
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(library, retroviral, screening; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Drug delivery systems
(liposomes; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Adeno-associated virus
Antiarteriosclerotics
Antidiabetic agents
Antihypertensives
Antiobesity agents
Cattle
Chicken (Gallus domesticus)
Chimpanzee (Pan troglodytes)
DNA sequences
Diagnosis
Dog (Canis familiaris)
Drug screening
Gene therapy
Macaca mulatta
Mammal (Mammalia)
Mouse
Mouse (Mus musculus)
Orangutan
Protein sequences
Rat (Rattus norvegicus)
Sheep
Swine
cDNA sequences
(methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Gene, animal
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Chimeric gene
Cytokines
Fatty acids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(methods of screening for compds. that modulate **LSR**

(lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Genetic polymorphism
Mutation
(of **LSR** gene, detection of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Molecular cloning
(of **LSR** nucleic acid; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(repressors, for KRAB; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Peptide library
cDNA library
(screening; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Peptides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(screening; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Mutagenesis
(site-directed, substitution, on **LSR** stop codon; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Brain, disease
(stroke, treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Disease, animal
(syndrome X, treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Codons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(termination, mutation on; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(to **LSR**; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Anorexia
Cachexia
Heart, disease
(treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Bond
(van der Waals, interactions between **LSR** and leptin; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT Protein motifs
(zinc finger; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 331467-54-0 331467-56-2 331467-58-4 331467-60-8 331467-62-0
331467-64-2 331467-66-4 331467-68-6 331467-70-0 331467-71-1
331467-72-2 331467-73-3 331467-74-4 331467-75-5 331467-76-6
331467-77-7 331467-78-8 331467-79-9 331467-80-2 331467-81-3
331467-82-4 331467-83-5 331467-84-6 331467-85-7 331467-86-8
331467-87-9 331467-88-0 331467-89-1 331467-90-4 331467-91-5
331467-92-6 331467-93-7 331467-94-8 331467-95-9 331481-55-1
331481-56-2 331481-57-3 331481-58-4 331481-59-5 331481-60-8
331481-61-9 331481-62-0 331481-63-1 331481-64-2 331481-65-3
331481-66-4 331481-67-5 331481-68-6 331481-69-7
RL: PRP (Properties)
(Unclaimed; methods of screening for compds. that modulate the **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in the prevention and treatment of **obesity**-related diseases)

IT 160026-75-5P 170213-86-2P, Protein (rat clone 2A gene ob precursor)
177404-21-6P, Leptin (human) 183147-64-0P 184973-66-8P, Leptin (cattle) 184973-68-0P, Leptin (Swine) 188833-76-3P 196217-63-7P, Leptin (Canis familiaris) 207465-86-9P, Leptin (chicken) 331476-95-0P, Leptin (Gorilla gorilla) 331476-96-1P, Leptin (sheep) 331476-97-2P, Leptin (Orangutan)
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(amino acid sequence; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 220702-90-9 220702-94-3 220702-96-5 220702-98-7 220703-00-4
220703-02-6 220703-06-0 220703-07-1 220703-08-2
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 169494-85-3P, Leptin
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(binding, uptake or degradation; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 69-93-2, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hyperuricemia, treatment of; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 53572-29-5, Apm1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 220702-87-4 220702-93-2 220702-95-4 220703-03-7 220703-05-9
331476-98-3D, subfragments are claimed 331476-99-4 331477-00-0
331477-01-1 331477-02-2
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; methods of screening for compds. that modulate

LSR (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 3604-87-3, Ecdysone 84371-65-3, Ru486
RL: BSU (Biological study, unclassified); BIOL (Biological study) (small mol. regulatory system; methods of screening for compds. that modulate **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in prevention and treatment of **obesity**-related diseases)

IT 150412-01-4 175249-12-4 331481-15-3 331481-16-4 331481-17-5
331481-18-6 331481-19-7 331481-20-0 331481-21-1, 1: PN: WO0121647
SEQID: 74 unclaimed DNA 331481-22-2 331481-23-3 331481-24-4
331481-25-5, 5: PN: WO0121647 SEQID: 78 unclaimed DNA 331481-26-6
331481-27-7 331481-28-8 331481-29-9 331481-30-2 331481-31-3
331481-32-4 331481-33-5 331481-34-6 331481-35-7 331481-36-8
331481-37-9 331481-38-0 331481-39-1 331481-40-4 331481-41-5
331481-42-6 331481-43-7 331481-44-8 331481-45-9 331481-46-0
331481-47-1 331481-48-2 331481-49-3 331481-50-6 331481-51-7
331481-52-8 331481-53-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; methods of screening for compds. that modulate the **LSR** (lipolysis stimulated receptor)-leptin interaction and their use in the prevention and treatment of **obesity**-related diseases)

L2 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor
PY 2000
2000
2000
2001
2003
2002
2003
IN Blumenfeld, Marta; Bougueleret, Lydie; Bihain, Bernard
SO PCT Int. Appl., 191 pp.
CODEN: PIXXD2
TI Polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor
AB The invention provides human **LSR** (lipolysis stimulated receptor) genomic sequences, polypeptides, antibodies, and polynucleotides including biallelic markers derived from the **LSR** locus. Primers hybridizing to regions flanking these biallelic markers are also provided. This invention also provides polynucleotides and methods suitable. . . a nucleic acid containing sample for one or more biallelic markers of the invention. Association studies have already linked a **LSR** biallelic marker with both fasting and postprandial plasma triglyceride levels in obese adolescent girls, and a different **LSR** allelic marker with insulin and glucose levels of obese adolescent girls. A combination of **LSR** biallelic markers is associated with **obesity** in adolescent girls. The invention provides methods to detect a statistical correlation between a biallelic marker allele and a phenotype. . .
ST lipolysis stimulated receptor **LSR** gene biallelic marker **obesity**; sequence lipolysis stimulated receptor **LSR** gene human
IT Lipoprotein receptors
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**LSR** (lipolysis-stimulated receptor); polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Gene, animal
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**LSR**; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amplification and microsequencing; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Heart, disease
(angina pectoris, syndrome X, biallelic marker diagnostic correlation with **obesity**-related; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Nucleic acid amplification (method)
Nucleic acid hybridization
PCR (polymerase chain reaction)
(assay; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Glycerides, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(biallelic marker correlation with plasma levels; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Atherosclerosis
Eye, disease
Kidney, disease
(biallelic marker diagnostic correlation with **obesity**-related; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT **Obesity**
(biallelic markers correlation with; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Genetic markers
(biallelic; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Cardiovascular system
(disease, biallelic marker diagnostic correlation with **obesity**-related; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Antiobesity agents
(evaluation of; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Diagnosis
(genetic; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Lipids, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hyperlipidemia, biallelic marker correlation with; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Blood vessel, disease
(microangiopathy, biallelic marker diagnostic correlation with **obesity**-related; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT DNA sequence analysis
(microsequencing assay; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Diabetes mellitus
(non-insulin-dependent, biallelic marker diagnostic correlation with **obesity**-related; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT DNA sequences
Drug screening
Genotyping (method)
Molecular cloning
Protein sequences
cDNA sequences
(polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Genetic polymorphism
(single nucleotide, biallelic marker; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)
IT Disease, animal

(syndrome X, biallelic marker diagnostic correlation with **obesity**-related; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT 220702-98-7 220703-00-4 220703-02-6

RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(amino acid sequence; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT 288281-68-5 288281-69-6 288281-70-9 288281-71-0 288281-72-1
288281-73-2 288281-74-3 288281-75-4 288281-76-5 288281-77-6
288281-78-7 288281-79-8 288281-80-1 288281-81-2 288281-82-3
288281-83-4 288281-84-5 288281-85-6 288281-86-7 288281-87-8
288281-88-9 288281-89-0 288281-90-3 288281-91-4 288281-92-5
288281-93-6 288281-94-7 288281-95-8 288281-96-9 288281-97-0
288281-98-1 288281-99-2 288282-00-8 288282-01-9 288282-02-0
288282-03-1 288282-04-2 288282-05-3 288282-06-4 288282-07-5
288282-08-6 288282-09-7 288282-10-0 288282-11-1 288282-12-2
288282-13-3 288282-14-4 288282-15-5 288282-16-6 288282-17-7
288282-18-8 288282-19-9 288282-20-2 288282-21-3 288282-22-4
288282-23-5 288282-24-6 288282-25-7 288282-26-8 288282-27-9
288282-28-0 288282-29-1 288282-30-4 288282-31-5 288282-32-6
288282-33-7 288282-34-8 288282-35-9 288282-36-0 288282-37-1
288282-38-2 288282-39-3 288282-40-6 288282-41-7 288282-42-8
288282-43-9 288282-44-0 288282-45-1 288282-46-2 288282-47-3
288282-48-4 288282-49-5 288282-50-8 288282-51-9 288282-52-0
288282-53-1 288282-54-2 288282-55-3 288282-56-4 288282-57-5
288282-58-6 288282-59-7 288282-60-0 288282-61-1 288282-62-2
288282-63-3 288282-64-4 288282-65-5 288282-66-6 288282-67-7
288282-68-8 288282-69-9 288282-70-2 288282-71-3 288282-72-4

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(amplification primer; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT 50-99-7, D-Glucose, biological studies 9004-10-8, Insulin, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(biallelic marker correlation with plasma levels; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT 288282-73-5 288282-74-6 288282-75-7 288282-76-8 288282-77-9
288282-78-0 288282-79-1 288282-80-4 288282-81-5 288282-82-6
288282-83-7 288282-84-8 288282-85-9 288282-86-0 288282-87-1
288282-88-2 288282-89-3 288282-90-6 288282-91-7 288282-92-8
288282-93-9 288282-94-0 288282-95-1 288282-96-2 288282-97-3
288282-98-4 288282-99-5 288283-00-1 288283-01-2 288283-02-3
288283-03-4 288283-04-5 288283-05-6 288283-06-7 288283-07-8
288283-08-9 288283-09-0 288283-10-3 288283-11-4 288283-12-5
288283-13-6 288283-14-7 288283-15-8 288283-16-9 288283-17-0
288283-18-1 288283-19-2 288283-20-5 288283-21-6 288283-22-7
288283-23-8 288283-24-9 288283-25-0 288283-26-1 288283-27-2
288283-28-3 288283-29-4 288283-30-7 288283-31-8 288283-32-9
288283-33-0

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(microsequencing primer; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT 220702-97-6 220703-01-5 288281-52-7, DNA (human gene **LSR** plus flanks) 288281-53-8 288281-54-9 288281-55-0 288281-56-1
288281-57-2 288281-61-8 288281-62-9 288281-63-0 288281-64-1
288281-65-2 288281-66-3 288281-67-4

RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(nucleotide sequence; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

IT 129037-08-7, DNA (human gene G35018) 149568-81-0

RL: PRP (Properties)

(unclaimed nucleotide sequence; polymorphic markers of the **LSR** gene encoding the lipolysis-stimulated receptor)

L2 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications
PY 1999
1999
1999
2004
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2002
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2004
IN Bihain, Bernard; Bougueleret, Lydie; Yen-Potin, Frances
SO PCT Int. Appl., 279 pp.
CODEN: PIXXD2
TI Mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications
AB The invention concerns rat, mouse and human **LSR** proteins, the genes and cDNAs encoding them, and their cloning and expression. Methods for diagnosing and selecting compds. useful as medicine for preventing and/or treating pathologies and/or pathogenic conditions such as **obesity** and anorexia, hyperlipemia, atherosclerosis, diabetes, hypertension, and more generally the various pathologies associated with anomalies of the cytokine metabolism are also disclosed. The cDNAs for rat, mouse and human α, α' and β subunits of **LSR** were cloned and sequenced. The human gene for **LSR** was also cloned and sequenced. The α' and β subunits are produced by alternative splicing. The α' subunit lacks exon. . . the β subunit, exons 3 and 4. The receptor comprises one α or α' subunit and, optimally, 3 β subunits. **LSR** binds to ApoB and ApoE. After binding to **LSR**, the ApoB and ApoE are internalized and degraded. The cytokine leptin binds to the α/α' subunit and is subsequently internalized and degraded. Leptin stimulates binding, internalization and degradation of VLDL and LDL by **LSR**. Complement protein C1q receptor (C1qR) also binds to the receptor. When C1q binds to C1qR, it dissocs. from and activates **LSR**.
IT Apolipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(B, binding/internalization by **LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)
IT Complement receptors
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(C1q, binding to/regulation of **LSR** by; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and

related risks or complications)

IT Apolipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(E, binding/internalization by **LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Lipoprotein receptors
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(**LSR** (lipolysis-stimulated receptor); mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Liver
(**LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(anti-**LSR**; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Chylomicrons
(binding/internalization by **LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Glycerides, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(binding/internalization by **LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Heart, disease
(failure; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for **LSR** nucleic acid; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT cDNA sequences
(for lipolysis-stimulated receptors **LSR** of rat, mouse and human)

IT Lipids, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hyperlipidemia; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Lipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(low-d., binding/internalization by **LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Anorexia
Antiarteriosclerotics
Antidiabetic agents

Antihypertensives
Antiobesity agents
Diagnosis
Digestion, biological
Drug screening
Mouse (Mus musculus)
Rat (Rattus norvegicus)
(mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Gene, animal
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal, anti-**LSR**; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Genetic polymorphism
Mutation
(of **LSR** gene, detection of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Molecular cloning
(of **LSR** nucleic acid; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT DNA sequences
(of lipolysis-stimulated receptor **LSR** genes of human)

IT Protein sequences
(of lipolysis-stimulated receptors **LSR** of rat, mouse and human)

IT Mammal (Mammalia)
Rabbit
(transgenic, **LSR**-expressing; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT Lipoproteins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(very-low-d., binding/internalization by **LSR** of; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 220702-90-9P 220702-94-3P 220702-96-5P 220702-98-7P 220703-00-4P
220703-02-6P 220703-06-0P 220703-07-1P 220703-08-2P
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(amino acid sequence; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

IT 169494-85-3, Leptin
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(binding to and modulation of **LSR** by; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and

related risks or complications)
IT 69-93-2, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hyperuricemia; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)
IT 220702-87-4 220702-93-2 220702-95-4 220702-97-6 220702-99-8
220703-01-5 220703-03-7 220703-04-8 220703-05-9 220703-09-3
220703-10-6 220703-11-7 220703-12-8 220703-13-9 220703-14-0
220703-15-1 220703-16-2 220703-17-3 220703-18-4
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)
IT 220608-53-7 220608-57-1
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(rat **LSR** subunit α peptide; mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications)

L2 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Lipoprotein-regulating proteins for treatment of **obesity**
PY 1999
1999
1999
2004
1999
2002
1999
1999
2002
2000
2001
2004
2004
2004
2004
2002
2002
2004
2002
IN Bihain, Bernard; Bougueleret, Lydie; Yen-Potin, Frances
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
TI Lipoprotein-regulating proteins for treatment of **obesity**
AB . . . useful for modulating lipoprotein levels in vivo. The invention stems from the discovery that activity of the Lipolysis Stimulated Receptor (**LSR**) can be inhibited or enhanced by exogenous agents, including polypeptides.
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(AdipoQ; lipoprotein-regulating proteins for treatment of **obesity**)
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ApM1; lipoprotein-regulating proteins for treatment of **obesity**)
IT Lipoprotein receptors
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC

(Process)
(**LSR** (lipolysis-stimulated receptor); lipoprotein-regulating proteins for treatment of **obesity**)
IT Antiarteriosclerotics
(antiatherosclerotics; lipoprotein-regulating proteins for treatment of **obesity**)
IT Kidney, disease
(diabetic nephropathy; lipoprotein-regulating proteins for treatment of **obesity**)
IT Eye, disease
(diabetic retinopathy; lipoprotein-regulating proteins for treatment of **obesity**)
IT Liver
(lipid partitioning between periphery and; lipoprotein-regulating proteins for treatment of **obesity**)
IT Antihypertensives
Antiobesity agents
Appetite depressants
Body weight
Obesity
(lipoprotein-regulating proteins for treatment of **obesity**)
IT Fatty acids, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(lipoprotein-regulating proteins for treatment of **obesity**)
IT Lipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metabolism; lipoprotein-regulating proteins for treatment of **obesity**)
IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(multimerins; lipoprotein-regulating proteins for treatment of **obesity**)
IT Diabetes mellitus
(non-insulin-dependent; lipoprotein-regulating proteins for treatment of **obesity**)
IT Atherosclerosis
Hypertension
(**obesity**-related; lipoprotein-regulating proteins for treatment of **obesity**)
IT 220792-58-5 220792-59-6 220793-06-6 220793-07-7 220793-20-4
220793-21-5 220793-23-7 220793-24-8
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(amino acid sequence; lipoprotein-regulating proteins for treatment of **obesity**)
IT 80295-33-6, Complement C1q 123423-09-6, Cerebellin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipoprotein-regulating proteins for treatment of **obesity**)
IT 9004-10-8, Insulin, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(resistance; **obesity**-related; lipoprotein-regulating proteins for treatment of **obesity**)

L2 ANSWER 7 OF 9 MEDLINE on STN
TI Back disorders (low back pain, cervicobrachial and lumbosacral radicular syndromes) and some related risk factors.
PY 2001
AU Kostova V; Koleva M
SO Journal of the neurological sciences, (2001 Nov 15) 192 (1-2) 17-25.
Journal code: 0375403. ISSN: 0022-510X.
AB . . . this study was to estimate the prevalence rates of low back pain (LBP), cervicobrachial and lumbosacral radicular syndromes (CBR and

LSRS) in workers from a fertilizer plant and also to analyze the impact of several important work-related and non-occupational risk factors.. . . vs. 10.0% in the referent group (OR 1.73, 95% CI 1.14-2.63); LBP-25.8% vs. 17.0% (OR 1.70, 95% CI 1.21-2.38) and **LSRS**-16.0% vs. 5.8% (OR 3.09, 95% CI 1.89-5.08). Gender is the second risk factor strongly related to LBP, CBS and **LSRS**. The prevalence of radicular syndromes is higher for women that for men: OR for CBS is 3.27 and 1.93 for **LSRS**. There is an interesting trend in the case of combined impact of age and gender among men and women of 40 or under and over 40--the risk, estimated by OR, is higher. In men over 40, overweight, **obesity** and heaviness of smoking, estimated by duration of smoking and daily cigarette consumption (more than 20 years and more than. . .

CT . . .

PP, physiopathology
Humans
Hyperlipidemia: CO, complications
*Low Back Pain: EP, epidemiology
Low Back Pain: PP, physiopathology
*Lumbosacral Plexus: PP, physiopathology
Obesity: CO, complications
*Occupational Diseases: EP, epidemiology
Occupational Diseases: PP, physiopathology
Prevalence
*Radiculopathy: EP, epidemiology
Radiculopathy: PP, physiopathology
Risk Factors

. . .

L2 ANSWER 8 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI **LSR** receptor, activity, cloning, and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications.

PY 2003

AU Bihain, Bernard [Inventor, Reprint Author]; Bougueleret, Lydie [Inventor]; Yen-Potin, Frances [Inventor]

SO Official Gazette of the United States Patent and Trademark Office Patents, (Oct 21 2003) Vol. 1275, No. 3. http://www.uspto.gov/web/menu/patdata.html . e-file.
ISSN: 0098-1133 (ISSN print).

TI **LSR** receptor, activity, cloning, and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications.

AB The present invention relates to a new complex receptor polypeptide **LSR** (Lipolysis Stimulated Receptor), characterized by its functional activities, the cloning of the cDNAs complementary to the messenger RNAs encoding each. . . of compounds which can be used as medicament for the prevention and/or treatment of pathologies and/or of pathogeneses such as **obesity** and anorexia, hyperlipidemias, atherosclerosis, diabetes, hypertension, and more generally the various pathologies associated with abnormalities in the metabolism of cytokines.

L2 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Back disorders (low back pain, cervicobrachial and lumbosacral radicular syndromes) and some related risk factors.

PY 2001

AU Kostova, V.; Koleva, M. [Reprint author]

SO Journal of the Neurological Sciences, (November 15, 2001) Vol. 192, No. 1-2, pp. 17-25. print.
CODEN: JNSCAG. ISSN: 0022-510X.

AB. . . this study was to estimate the prevalence rates of low back pain (LBP), cervicobrachial and lumbosacral radicular syndromes (CBR and **LSRS**) in workers from a fertilizer plant and also to analyze the impact of several important work-related and non-occupational risk factors.. . . vs. 10.0% in the referent group (OR 1.73, 95% CI 1.14-2.63); LBP-25.8% vs. 17.0% (OR 1.70, 95% CI 1.21-2.38) and **LSRS**-16.0% vs. 5.8% (OR 3.09, 95% CI 1.89-5.08). Gender is the second risk factor strongly related to LBP, CBS and **LSRS**. The

prevalence of radicular syndromes is higher for women that for men: OR for CBS is 3.27 and 1.93 for **LSRS**. There is an interesting trend in the case of combined impact of age and gender among men and women of 40 or under and over 40-the risk, estimated by OR, is higher. In men over 40, overweight, **obesity** and heaviness of smoking, estimated by duration of smoking and daily cigarette consumption (more than 20 years and more than. . .

IT . . .

IT Diseases
low back pain: nervous system disease
Low Back Pain (MeSH)

IT Diseases
lumbosacral radicular syndrome: bone disease

IT Diseases
obesity: nutritional disease
Obesity (MeSH)

IT Diseases
overweight: nutritional disease
Obesity (MeSH)

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:126928 CAPLUS
DN 130:192764
TI Mammalian lipolysis-stimulated receptors **LSR** and nucleic acids and uses for diagnosing, preventing and/or treating **obesity** and related risks or complications
IN Bihain, Bernard; Bougueleret, Lydie; Yen-Potin, Frances
PA Genset, Fr.; Institut National de la Sante et de la Recherche Medicale (INSERM)
SO PCT Int. Appl., 279 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9907737	A2	19990218	WO 1998-IB1257	19980806
	WO 9907737	A3	19990610		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2767136	A1	19990212	FR 1997-10088	19970806
	FR 2767136	B1	20040827		
	FR 2767135	A1	19990212	FR 1998-5032	19980422
	FR 2767135	B1	20020712		
	CA 2274302	AA	19990218	CA 1998-2274302	19980806
	AU 9885564	A1	19990301	AU 1998-85564	19980806
	AU 745607	B2	20020321		
	EP 964870	A2	19991222	EP 1998-936611	19980806
	EP 964870	B1	20031210		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001512492	T2	20010821	JP 1999-511920	19980806
	AT 256146	E	20031215	AT 1998-936611	19980806
	EP 1375516	A2	20040102	EP 2003-102647	19980806
	EP 1375516	A3	20040609		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	PT 964870	T	20040227	PT 1998-936611	19980806
	ES 2210786	T3	20040701	ES 1998-936611	19980806
	US 6635431	B1	20031021	US 1999-269939	19990528
	AU 770033	B2	20040212	AU 2002-29343	20020328
	AU 2002029343	A5	20020523		
	US 2004077051	A1	20040422	US 2003-650507	20030827
PRAI	FR 1997-10088	A	19970806		
	FR 1998-5032	A	19980422		
	AU 1998-85563	A	19980806		
	EP 1998-936611	A3	19980806		
	WO 1998-IB1257	W	19980806		
	US 1999-269939	A3	19990528		

=> lsr and obesity
LSR IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s lsr and obesity
L2 9 LSR AND OBESITY

=> d l2